

AMENDMENTS TO THE CLAIMS

1. **(Currently amended)** A vaccine composition suitable for administration to a vertebrate host which comprises:

(a) a polynucleotide vaccine component comprising at least one polynucleotide encoding at least one antigen, such that introduction of said polynucleotide vaccine component formulation into said vertebrate host results in expression of a biologically effective amount of said antigen or antigens so as to induce a prophylactic or therapeutic immune response;

(b) a protein antigen vaccine component comprising at least one protein antigen selected from the group consisting of model protein antigens and vaccine protein antigens; and

(c) a mineral-based, negatively charged adjuvant,
wherein said mineral-based negatively charged adjuvant is preincubated or subsequently mixed with said at least one protein antigen vaccine component prior to formulating with said polynucleotide vaccine component.

2. **(Previously presented)** The vaccine composition according to claim 1 wherein said mineral-based negatively charged adjuvant is an aluminum salt or a calcium salt.

3. **(Previously presented)** The vaccine composition according to claim 2 wherein said aluminum or calcium salt is selected from the group consisting of aluminum phosphate, aluminum hydroxyphosphate, phosphate-treated aluminum hydroxide, calcium phosphate, calcium hydroxyphosphate, and phosphate-treated calcium hydroxide.

4. **(Currently amended)** The vaccine composition according to claim 1 wherein said group of model protein antigens range from acidic isoelectric point (IEP) proteins to alkaline IEP proteins.

5. **(Currently amended)** The vaccine composition according to claim 1 wherein said group of vaccine protein antigens comprises a surface protein or a core protein of Hepatitis B virus (HBV), a de-toxified toxin from the bacteria *Clostridium tetani* (a i.e. tetanus toxoid), a de-toxified toxin from the bacteria *Clostridium botulinus* (a i.e. botulinus toxoid), and/or and a de-toxified toxin from the bacteria *Corynebacterium diphtheriae* (a i.e. diphtheria toxoid).

6. **(Previously presented)** The vaccine composition according to claim 1 wherein said group of vaccine protein antigens comprises protein antigens derived from inactivated poliovirus.

7. **(Canceled)**

8. **(Previously presented)** A kit comprising a vaccine composition as defined in claim 1 in a unit dose form for administration to a vertebrate recipient.

9. **(Currently amended)** A method of using a mineral-based, negatively charged adjuvant as a component in a combined DNA/protein-based vaccine composition as defined in claim 1, comprising preincubating or subsequently mixing the mineral-based, negatively charged adjuvant with said at least one protein antigen vaccine component prior to being formulated with said polynucleotide vaccine component.

10. **(Currently amended)** A vaccine composition suitable for administration to a human host which comprises:

(a) a polynucleotide vaccine component comprising at least one polynucleotide encoding at least one antigen, such that introduction of said formulation into said vertebrate host results in expression of a biologically effective amount of said antigen or antigens so as to induce a prophylactic or therapeutic immune response;

(b) a protein antigen vaccine component comprising at least one protein antigen selected from the group consisting of model protein antigens and vaccine protein antigens; and

(c) a mineral-based, negatively charged adjuvant,
wherein said mineral-based negatively charged adjuvant is preincubated or subsequently mixed with said at least one protein antigen vaccine component prior to formulating with said polynucleotide vaccine component
The vaccine composition of claim 1, wherein the vertebrate host is a human host.

11. **(Currently amended)** A kit comprising a vaccine composition as defined in claim 1 in a unit dose form for administration to a human recipient
The kit of claim 7, wherein the vertebrate host is a human host.

12. **(New)** A method for preparing a vaccine composition according to claim 1, wherein a mineral-based negatively charged adjuvant is preincubated or subsequently mixed with

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at least one protein antigen vaccine component prior to formulating with a polynucleotide vaccine component.